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PATENT APPLICATION
Mo-6968
MD-00-130-PU

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF)
JEFFREY ROBBINS ET AL) GROUP NO.: 1733
SERIAL NUMBER: 10/068,123) EXAMINER: J.L. GOFF II
FILED: FEBRUARY 5, 2002)
TITLE: PATTERNED POLYURETHANE)
FOAM AND A PROCESS FOR THE)
PRODUCTION OF TUFTED GOODS)
WITH PATTERNED FOAM BACKING)

REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply Brief is submitted to update Sections II and IV of the Appeal Brief filed by Appellants on November 23, 2004, and to rebut certain arguments raised by the Examiner for the first time in the Examiner's Answer dated February 8, 2005.

It is respectfully requested that Section II of Appellants' Appeal Brief filed on November 23, 2004 be changed or updated to reflect the statement presented below for Section II. See 37 CFR § 41.8. Although Appellants Reply Brief in the present application is not due in the United States Patent and Trademark Office until April 8, 2005, the undersigned agent is filing this Reply Brief on the same day as Appellants' Appeal Brief in copending U.S. Application Serial Number 10/138,994. The undersigned agent is also responsible for filing the Appeal Brief in copending U.S. Application Serial Number 10/138,994. It is therefore submitted that Appellants have complied with the time period stated in 37 CFR § 41.8.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450 3/18/05

Date

N. Denise Brown, Reg. No. 36,097

Name of applicant, assignee or Registered Representative

N. Denise Brown
Signature

March 18, 2005

Date

II. RELATED APPEALS AND INTERFERENCES

There is one pending appeal which Appellants are aware of that may be related to, would directly affect, would be affected by or have a bearing on the Board's decision in this appeal.

This pending appeal is in U.S. Application Serial No. 10/138,994 which was filed on May 3, 2002. A Notice of Appeal was filed in this copending application on January 27, 2005 and an Appeal Brief will be filed on or before March 27, 2005. The undersigned agent is identifying the pending Appeal in this copending Application as related under this section since (1) the claims therein require an urethane froth foam that comprises a composition similar to the reactive polyurethane mixture required by the present claims, and (2) the obviousness rejection therein is based on a common reference (i.e. the Holeschovsky et al reference, U.S. Patent 6,264,775) as the rejection in the present application. The similarities between the urethane froth foam of this copending Application which is also on Appeal and the reactive polyurethane mixture of the present invention are based on the fact that both comprise (a) at least one polyisocyanate component, (b) at least one isocyanate-reactive component and (c) at least one non-Newtonian thickener. Differences between the invention of the copending Application and the present invention include the fact that the copending application is directed to composite structures which are suitable for use as an underlay for ceramic tile and other flooring applications compared to the present invention which is directed to a process for the preparation of a patterned polyurethane backed tufted good (i.e. a carpet).

Aside from this, there are no interferences or other judicial proceedings which Appellants are aware of that may be related to, would directly affect, would be directly affected by or have a bearing on the Board's decision in the present appeal.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellants gratefully acknowledge the withdrawal of the rejection of Claims 1 and 2 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Number 4,423,103 (Bogdany).

Appellants gratefully acknowledge the withdrawal of the rejection of Claims 1-10 and 13-15 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Number 4,354,810 (Stidham) in view of WO 00/37737 (Holeschovsky et al, believed to correspond to U.S. Patent Number 6,264,775).

The withdrawal of the rejection of Claims 3-10 and 13-15 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Number 4,423,103 (Bogdany), and further in view of WO 00/37737 (Holeschovsky et al, believed to correspond to U.S. Patent Number 6,264,775) is also gratefully acknowledged.

The rejection of Claims 1-10 and 13-15 under 35 U.S.C. § 103(a) as being obvious over WO 00/37737 (Holeschovsky et al, believed to correspond to U.S. Patent Number 6,264,775) in view of U.S. Patent Number 4,354,810 (Stidham), GB 2,160,790A (Satiar), U.S. Patent Number 5,045,375 (Davis et al), or U.S. Patent Number 4,423,103 (Bogdany) was maintained.

VII. ARGUMENTS

CLAIMS 1-10 AND 13-15 ARE NOT RENDERED OBVIOUS BY WO 00/37737 (THE HOLESCHOVSKY ET AL REFERENCE, WHICH IS BELIEVED TO CORRESPOND TO U.S. PATENT 6,264,775) IN VIEW OF U.S. PATENT 4,354,810 (THE STIDHAM REFERENCE), GB PATENT 2,160,790A (THE SATIAR REFERENCE), U.S. PATENT 5,045,375 (THE DAVIS ET AL REFERENCE) OR U.S. PATENT 4,423,103 (THE BOGDANY REFERENCE).

In the Examiner's Answer dated February 8, 2005, on page 5, lines 17-20 and on page 9, lines 16-19, the Examiner stated that:

“... Holeschovsky et al. specifically teach using a doctor blade to spread the polyurethane mixture on the back side of the tufted carpet and Holeschovsky et al specifically teach depending upon the type of carpet produced additional doctor blades, etc. may be used (Page 5, lines 22-23 and Page 7, lines 12-15).

Appellants wish to clarify exactly what is disclosed by the Holschovsky et al reference. It is accurate to state that this reference discloses that after the application of a puddle of a polyurethane adhesive to the greige good, a doctor blade or doctor bar, in cooperation with the platen, spreads the adhesive across the greige good and adjusts the thickness of the adhesive. See column 2, lines 8-11; and column 3, lines 55-57. Thus, Appellant submits that the first portion of the Examiner's statement is accurate.

However, they disagree with the last portion of the above that “Holeschovsky et al specifically teach depending upon the type of carpet produced additional doctor blades, etc. may be used”. It is respectfully submitted that this is an unfair characterization of what is disclosed and described this reference.

The Holeschovsky et al reference also discloses a two-puddle polyurethane based carpet laminating system. See Figure 2; column 3, lines 14-15; and column 3, lines 58-57. It is readily apparent that Figure 2 and the two-puddle system described therein is a commercially available system, and is “prior art”. See Figure 2 which is labeled “PRIOR ART”. Two puddle systems such as this apply a first puddle of polyurethane froth adhesive to the reverse side of the greige good, and

the doctor blade in conjunction with the platen, limit the applied weight of polyurethane and force it into the greige good. Downstream of this first puddle and first doctor blade, a second puddle of polyurethane froth adhesive is applied, and this passes under a second doctor blade. There is sufficient distance between the first doctor blade and the second doctor blade to allow enough adhesive to be deposited to temporarily bind the secondary backing when one is used. See column 3, lines 53-67. Thus, the latter part of this statement by the Examiner is not entirely accurate.

Appellants have again reviewed this reference and the only other disclosure of "additional doctor blades" is at column 4, line 58. This portion of the disclosure states that:

"[D]epending upon the adhesive viscosities, weight pickup desired, depth of tufting through the primary backing, and other well known factors, additional coating stations or additional doctor blades, nip rolls, impregnation rollers and the like may be required for any particular application."

It is respectfully submitted by Appellants that one of ordinary skill in the art would understand that an additional doctor blade would follow an additional puddle of polyurethane froth or an additional coating station as described by this reference. Once the froth adhesive passes under a doctor blade and is spread out, passing it under a second doctor blade provides no advantage.

The Examiner states on page 7, lines 8-9 with regard to the Bogdany reference that:

"...[I]t is noted the "rake" as described by Bogdany is nothing more than a patterned doctor blade as both have the same structure."

Appellants disagree with this interpretation of this reference. If the rake and the doctor blade in the Bogdany reference have the "same structure" as so stated by the Examiner and are thus "equivalent" to each other, why does the doctor blade have a different function than the rake does?

The Bogdany reference expressly discloses that the doctor blade serves to spread the froth evenly across the surface of the fabric (column 1, line 68 through column 2, line 1) and the rake which has tines pass through a substantial amount of the upper surface layers or mass of the froth to form serpentine pattern in the froth layer (column 2, line 3-6). Appellants respectfully submit that the doctor blade and the rake do not have the same structure, nor do they have the same function. It is Appellants position that the doctor blade and the rake of this reference are not "equivalent" to each other and are not readily interchanged with each other.

If these were "equivalent" to each other, then one could place the rake in front of the doctor blade in a carpet line and still produce a patterned layer on the back of the carpet. It is evident that if the rake precedes the doctor blade, then whatever pattern is formed into the froth will disappear when the patterned froth passes under the doctor blade as the function of the doctor blade is to evenly spread out the froth across the surface of the griegge good. Thus, Appellants submit that these are not properly considered "equivalent" to each other.

There is no factual basis for this statement. It is merely the opinion of the Examiner. As such, it should be disregarded by the Board.

Several times in the Answer dated February 8, 2005, the Examiner indicates that these references do not describe any problems that may arise when providing a pattern in the polyurethane composition. In particular, the Examiner stated that:

"... [H]oleschovsky et al do not describe any problems that may arise when providing a pattern in the polyurethane composition." (See page 9, lines 14-16).

The Examiner also stated:

"[N]owhere does Stidham describe any problems associated with performing the process using a polyurethane mixture." (See page 10, lines 13-14).

Appellants do not disagree with this statement with respect to the Holeschovsky et al reference. It is submitted that the Holeschovsky et al reference is silent with regard to forming a pattern in the polyurethane composition. Thus, logically, this reference does not discuss "problems" with this.

With regard to the Stidham reference, Appellants do not believe this is a fair characterization of the reference. The Stidham reference is clearly directed to forming a pattern in a foam backed carpet. While it does not expressly refer to or describe “problems” in forming patterns, the Stidham reference discusses “limitations” in the prior art (column 1, lines 59-61) which include the “high degree of control and coordination between the steps” and the “added disadvantages of design inflexibility and high tooling cost in the embossing apparatus and wastage of the foamed composition where it was compressed” (column 1, lines 30-37). It also discloses that (with regard to the invention therein) that the sleeve member used to distribute the foamed composition may become fouled by foamed material drying upon it over a period of time. Thus, one may rotate the sleeve member with a new groove into the same position as the fouled groove and then clean the fouled surface. “(See column 4, lines 41-53.) It also states that blades “may be easily replaced or removed for cleaning” (column 6, lines 3-4). This implies that the blades become “fouled” with the foam composition. Fouling is generally considered a problem by one of ordinary skill in the art. Accordingly, this reference does discuss problems with forming a pattern in a foamed composition.

It is, however, respectfully submitted by Appellants that it is irrelevant whether the references relied on in the present rejection disclose any information concerning problems or shortcomings with respect to forming a pattern in the polyurethane composition. The presence or absence of such discussion in the prior art does not mean that problems do not exist!

In the present specification, Appellants have also discussed such problems in the background section (see page 2, lines 21-32). One of ordinary skill in the art would know and understand that these problems exist even if the Stidham reference did not discuss them!

Appellants request clarification of the statement in the Examiner’s Answer on page 11, lines 8-10 that:

“... Holeschovsky et al. teach a polyurethane foam mixture may be used such that one would expect the polyurethane mixture taught by Holeschovsky et al. to hold a pattern (Page 19, lines 13-15)”.

It is requested that the Examiner clarify the portion of the Holeschovsky et al reference which is being relied on. Page 19, lines 13-15 states "[T]his adhesive may be a liquid, may be a froth foam, or may be a foamable system, unless otherwise limited". Appellants fail to understand the relevance of this statement to the position stated by the Examiner above. There is nothing in the statement that indicates or suggests that the polyurethane mixture of this reference would be expected to hold a pattern. Further clarification of what the Examiner intended is respectfully requested.

With respect to the Satiar reference, the Examiner stated on page 12, lines 10-13 that this reference is:

"merely cited to show that when applying an adhesive mixture, including those other than polyurethane, to the back side of a carpet it was a well known technique to pattern the adhesive mixture using a patterned doctor blade to impart non-slip/skid properties to the carpet."

Appellants maintain their position that this reference is not particularly pertinent to the patentability of the presently claimed invention. The present invention is specific to forming a pattern in a polyurethane backed greige good. The Satiar reference does not disclose or mention polyurethanes. It is specific to latex rubber as a backing material. There are key differences between latex and polyurethanes as suitable compositions for backing on carpets. Latex systems can be cured face up in an oven with no concern over the latex dripping off. Polyurethane systems are typically cured face down due to the initial drop in the viscosity of the system as it enters the curing oven. In addition, as Appellants discuss on page 2, lines 21-26 of their specification, a latex foam can be readily embossed while still wet without the latex sticking to the embossing roller. This is not so with a polyurethane system as discussed on page 2, lines 27-32. Accordingly, it is respectfully submitted that regardless of what the Satiar reference discloses about latex backed carpets and forming patterns in the latex, this has no relevance to the presently claimed invention which is clearly directed to polyurethane systems!

In view of the above, Appellants submit that the presently claimed invention is not fairly suggested to one of ordinary skill in the art by this combination of references. Accordingly, Appellants submit that the Examiner's rejection is in error and respectfully request that the rejection be reversed. The allowance of Claims 1-10 and 13-15 is respectfully requested.

Respectfully submitted,

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X. RELATED PROCEEDINGS APPENDIX:

The copending application that Appellants identified under Related Appeals and Interferences is currently pending at the Board. Thus, a decision is not available at this time

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